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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
NELSON, FREDA ANN	

ART UNIT	PAPER NUMBER
3628	

NOTIFICATION DATE	DELIVERY MODE
11/18/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hoffmanwarnick.com

Office Action Summary	Application No.	Applicant(s)	
	09/990,842	MOSKOWITZ ET AL.	
	Examiner	Art Unit	
	FREDA A. NELSON	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *August 12, 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-17,19-25 and 33-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-17,19-25 and 33-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

In view of the Appeal Brief filed on August 12, 2008, PROSECUTION IS HEREBY REOPENED.

A NEW GROUNDS OF REJECTION is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/JOHN W HAYES/

Supervisory Patent Examiner, Art Unit 3628

DETAILED ACTION

The appeal brief received on August 12, 2008 is acknowledged and entered. Claims 7, 18, and 26-32 have been cancelled. No claims have been added. Claims 1-6, 8-17, 19-25, and 33-38 are currently pending

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Response to Amendments and Arguments

Applicant's arguments filed August 12, 2008 have been fully considered but they are not persuasive.

In response to Applicant's that Albertshofer and Van De Pavert do not disclose or suggest *"a security system including an encryption system for encrypting usage data transmitted between the sensor and the processor",* the Examiner asserts that Van De Pavert discloses an invention which relates to the secure storage of cost data in counters of public telephone sets of the type where a caller pays by means of a card, such as a so-called ***"chip" card and relates to recording usage data in general and cost data in particular for machines through which the purchaser pays by means of a card, such as, e.g., vending machines for sweets or for soft drinks, certain types of parking meters and stamp vending machines wherein the term "card" should be taken to refer to any type of card (or equivalent of a card) which enables the user to make use of the machine in question***. Van De Pavert further disclose that here, the card advantageously and illustratively comprises a microprocessor 50 for processing data; memory 40 having a random access memory

(RAM) 47 for temporarily storing data, such as usage data; and, optionally, ***cryptographic circuitry (54) for performing cryptographic operations, e.g., encryption and decryption*** (col. 15, line 2-18; FIG. 2 [1] is sensor and [2] is the processor; FIG. 3D [metering pulses]; FIG. 4).

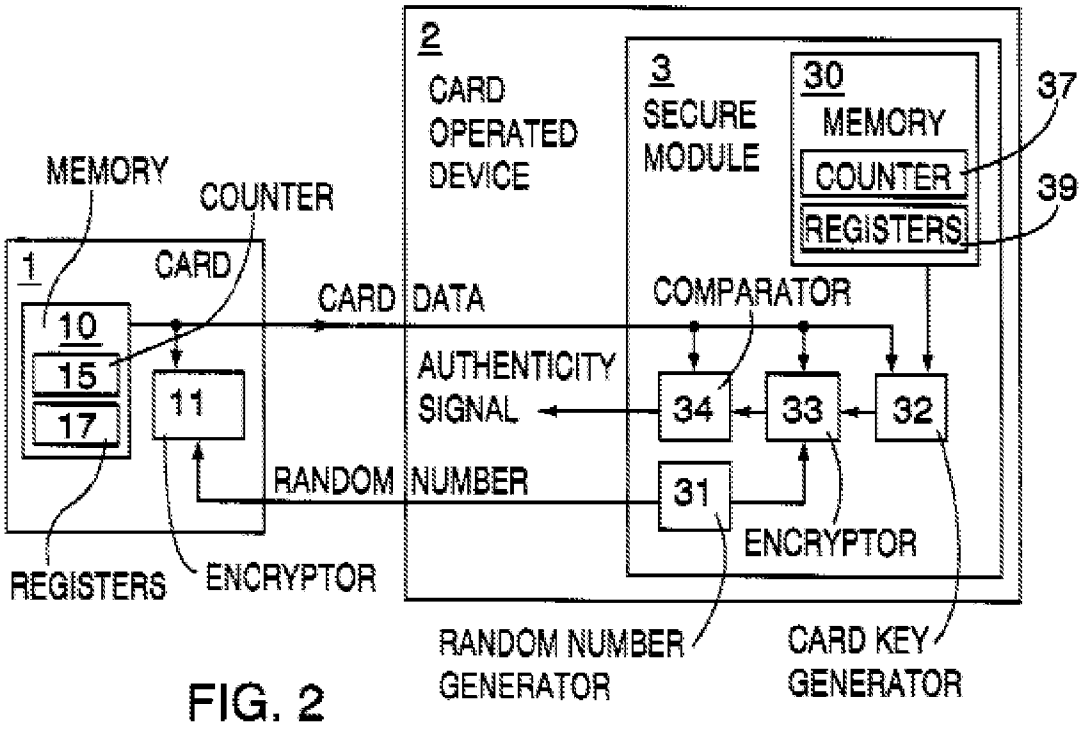

FIG. 2

In response to Applicant's argument, that in regards to independent claim 1, the *"neither the card nor the secure module 3 of Van De Pavert gathers usage data from a remote apparatus because neither is a sensor to gather usage of a telephone, e.g. a timer,* the Examiner asserts that Van De Pavert discloses ***"in particular and in response to the receipt of a first metering pulse, operation c occurs to process***

that pulse by reducing the balance stored on the card and then transmitting an updated reduced balance back to the phone. Specifically, upon the occurrence of the metering pulse, block 150, executing within the phone, generates a decrease code and, as symbolized by line 151, sends that code to the card*. This decrease code instructs the card to reduce the current balance stored therein either by a given amount (i.e., here "first payment data") supplied with the code (such as, e.g., the price of an item being purchased), which could occur where a payment card similar to card 1 is used to purchase separate items of potentially differing amounts, or by a predefined fixed amount, i.e., a fixed unit, as in the case for a telephone call"* (col. 9, lines 43-56; FIG. 3D [metering pulses]).

In response to Applicant's argument, is that, in regards to FIGS. 2 and 4, *"cryptographic circuitry 54 does not encrypt usage data transmitted between a sensor that gathers usage data and a processor",* the Examiner asserts that Van De Pavert discloses ***cryptographically encoding said first authorization code*** (see claims 24 and 27); and an invention which relates to the secure storage of cost data in counters of public telephone sets of the type where a caller pays by means of a card, such as a so-called "chip" card and relates to recording usage data in general and cost data in particular for machines through which the purchaser pays by means of a card, such as, e.g., vending machines for sweets or for soft drinks, certain types of parking meters and stamp vending machines wherein the term "card" should be taken to refer to any type of card (or equivalent of a card) which enables the user to make use of the machine in

question. Van De Pavert further disclose that here, the card advantageously and illustratively comprises a microprocessor 50 for processing data; memory 40 having a random access memory (RAM) 47 for temporarily storing data, such as usage data; and, optionally, cryptographic circuitry (54) for performing cryptographic operations, e.g., encryption and decryption (col. 15, line 2-18; FIG. 2 [1] is sensor and [2] is the processor; FIG. 3D [metering pulses]).

In response to Appellant's argument, 7 that *"a card balance Van De Pavert is not is not usage data because the use of the card has not taken place"* and Van De Pavert expressly discloses that "this procedure (including encryption) will not take place after each successive adjusting (e.g., reduction) of a card balance", the Examiner would like to direct that Appellant's attention to Van De Pavert's disclosure on column 8, lines 5-8. It appears that the Appellant has failed include the entire recitation of Van De Pavert, specifically, "the verification procedure…will not take place after each successive adjusting of a card balance ***during a single transaction".***

In response to Applicant's argument, with respect to claims 1 and 33, Albertshofer and Van De Pavert do not disclose *"communicating the usage data to a processor located the remote apparatus; and calculating a charge on the processor based on the usage data",* the Examiner asserts that Albertshofer discloses ***configured on the vehicle is a control unit*** comprising at least one first control logic ***for processing and displaying the vehicle travel data and a second control logic for***

processing and displaying further information on a graphic display arranged on the vehicle (col. 1, lines 35-39). Albertshofer further discloses a "*certain credit amount is stored on the chip card as is usual for a telephone card. When the equipment item is used the validity of this card is checked and subsequently in usage of the equipment item the corresponding usage data such as e.g. duration and intensity of use deducted from the chip card"; and o*nce the credit amount stored on the chip card has been exhausted the equipment item can no longer be put into operation thereby and the chip card needs to be revalidated by the equipment provider (col. 5, lines 43-52). Lastly, Albertshofer discloses also possible are ***combination cards which update the set of data in the equipment item as well as enable use of the equipment item*** (col. 6, lines 14-16).

In response to applicant's argument that in regards to independent claims 16 and 23, the rejection is defective because Van De Pavert is not mentioned in the rejection, the Examiner notes that the Appellant acknowledges that the examiner is combining Dar and Ando. Also, the Appellant did not point out the error in the previous office action and the Applicant argued based on Van De Pavert, Dar and Ando combination. Appellant's argument on Page 10 of the Appeal Brief is that

And In response to applicant's argument respect to claims 16 and 23, Dar doesn't disclose or suggest " a local data processing system for gathering data, communicating the usage data to a processor located on the remote apparatus; and

calculating a charge on the processor based on the usage data" that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a system that calculates a charge on the processor that is *"located on the remote apparatus"*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to Applicant's argument regarding independent claims 2, 8, and 13-14, see reasoning applied to claim 1.

In response to Applicant's argument, that in regards to claims 3-5 and 15, Ando does not overcome the deficiencies of Albertshofer and Van De Pavert because Ando does not encrypt usage data transmitted between the sensor that gathers the usage data and the processor, the Examiner asserts that claims 3-5 are dependent upon Van De Pavert which discloses ***cryptographically encoding said first authorization code*** (see claims 24 and 27); and an invention which relates to the secure storage of cost data in counters of public telephone sets of the type where a caller pays by means of a card, such as a so-called "chip" card and relates to recording usage data in general and cost data in particular for machines through which the purchaser pays by means of a card, such as, e.g., vending machines for sweets or for soft drinks, certain types of parking meters and stamp vending machines wherein the term "card" should be taken

to refer to any type of card (or equivalent of a card) which enables the user to make use of the machine in question. Van De Pavert further disclose that here, the card advantageously and illustratively comprises a microprocessor 50 for processing data; memory 40 having a random access memory (RAM) 47 for temporarily storing data, such as usage data; and, optionally, cryptographic circuitry (54) for performing cryptographic operations, e.g., encryption and decryption (col. 15, line 2-18; FIG. 2 [1] is sensor and [2] is the processor; FIG. 3D [metering pulses]).

In response to Applicant's argument that in regards to claim 6, Force doesn't encrypt usage data transmitted between the sensor that gathers the usage data and the processor" and "Force fails to show a tamper resistant encasement comprising an epoxy signature embodied therein", the Examiner notes with respect to the Official Notice taken in the previous office action, Examiner notes the following discussion of Official Notice taken from the MPEP:

> To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.1 ! l(b). See also Chevenard, 139 F.2dat 713, 60 USPQ at 241 ("[l]n the absence of any demand by appellant for the examiner to produce authority for his statement, we will not consider this contention."). A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2). See also Zurko, 258 F.3dat 1386, 59 USPQ2d at 1697 ("[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings" to satisfy the substantial evidence test). If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or

> declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2). If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. If the traverse was inadequate, the examiner should include an explanation as to why it was inadequate. (MPEP § 2144.03(C))

Applicant has not "specifically point[ed] out the supposed errors in the Examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art."

However, the Examiner asserts that Schwenck et al. disclose the glass sheets 30 and 32 are in this example about [fraction (3/1000)] of an inch thick and face the polymer matrix body 16, with the glass and polymer matrix in intimate face to face contact. ***The body 16 is made of a black epoxy polymer material 34 such as may be commonly used in the electronics industry as an adhesive for electronic components***. ***The matrix material 34 of the body 16 carries a chemical marker or signature***: a substance present, often added specifically, to aid recognition of the matrix material in tests (¶[0056]). Schwenck et al. further disclose the PCI card 10 of FIGS. 1 and 3 may be as previously described with a glass sheet as its outer surface, or it may be as shown in dotted outline in FIG. 3 and may have an outer shell or layer 38 of ***encapsulant matrix material, such as epoxy resin matrix, probably with a chemical signature marker(s)*** (¶ [0064])

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Albertshofer to include the

feature of Schwenck et al. in order to provide the user the advantage of using an encasement of epoxy which is a more durable, inexpensive, and tougher encasement.

In response to Applicant's arguments regarding claims 10-11, see reasoning applied to claim 1.

In response to Applicant's arguments regarding claim 21, see reasoning applied to claim 16.

In response to Appellant's argument that in regards to dependent claims 17 and 19-20, the Appellant argues that Ando does not the deficiencies of Dar and Van De Pavert because Van De Pavert is not mentioned in the rejection, the Examiner notes that the Appellant acknowledges that the examiner is combining Dar and Ando. Also, the Appellant did not point out the error in the previous office action and the Appellant argued based on Van De Pavert, Dar and Ando combination (See reasoning applied to claim 16).

In response to Appellant's arguments, that in regards to claim 17, Ando fails to disclose a tamper resistant encasement; and in regards to claims 19-20, Ando fails to show a central server, the Examiner notes that Ando et al. disclose that the on-board device must include a security system for protecting monetary data stored therein and ensuring legitimate communication with the stationary device (col. 1, lines 26-30). Ando

et al. further disclose that the illegitimate opening of the on-line device can be detected by sensing the removal of crews fastening a circuit board to a case of the on-board device (col. 2, lines 7-9). Ando et al. still further disclose that the switch is connected to a processor of the on- board device to detect the removal of the screws (col. 2, lines 11-13). Ando et al. still further disclose that Detectors 5 and 7 detect a vehicle and set a timing of Communication between the on-board device and the stationary device. Gate entrance detector 9 and gate exit detector 10 set a timing of opening and closing the gate (col. 3, lines 30-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the security system feature of Ando et al. in order to protect the monetary data stored therein the sensor (Ando et al.; col. 1, lines 26-30).

In response to Applicant's arguments regarding dependent claim 22, see reasoning applied to claims 17 and 19-20.

In response to Applicant's arguments regarding dependent claims 24-25, see reasoning applied to claim 23.

In response to Applicant's arguments regarding dependent Claims 34-35 and 37-38, see reasoning applied to claims 1 and 33.

In response to Applicant's arguments regarding dependent Claim 36, see reasoning applied to claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-2, 8, 13-14, 33 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albertshofer (US Patent Number 6,230,081), in view of Van De Pavert (Patent Number 5,914,471).

As per claims 1, 8, 12, and 33, Albertshofer discloses a sensor for gathering usage data from the remote apparatus (col. 3, lines 31-39; col. 5, lines 10-15; see claim 12); and

a processor for processing the gathered usage data and calculating a charge based on the gathered usage data (col. 5, lines 10-14; col. 5, lines 43-52; col. 6, lines 14-16; col. 6, lines 23-32; col. 1, line 29-39; abstract).

Albertshofer discloses a control unit includes ***a means for encoding the usage data and the write means writes the usage data in encoded form to said chip card*** (see claim 1). However, Albertshofer does not explicitly disclose wherein a security

system comprises an encryption system for encrypting usage data transmitted between the sensor and the processor.

Van De Pavert discloses ***cryptographically encoding said first authorization code*** (see claims 24 and 27). Van De Pavert further discloses an invention which relates to the secure storage of cost data in counters of public telephone sets of the type where a caller pays by means of a card, such as a so-called "chip" card and relates to recording usage data in general and cost data in particular for machines through which the purchaser pays by means of a card, such as, e.g., vending machines for sweets or for soft drinks, certain types of parking meters and stamp vending machines wherein the term "card" should be taken to refer to any type of card (or equivalent of a card) which enables the user to make use of the machine in question. Van De Pavert further disclose that here, the card advantageously and illustratively comprises a microprocessor 50 for processing data; memory 40 having a random access memory (RAM) 47 for temporarily storing data, such as usage data; and, optionally, cryptographic circuitry (54) for performing cryptographic operations, e.g., encryption and decryption (col. 15, line 2-18; FIG. 2 [1] is sensor and [2] is the processor; FIG. 3D [metering pulses]).

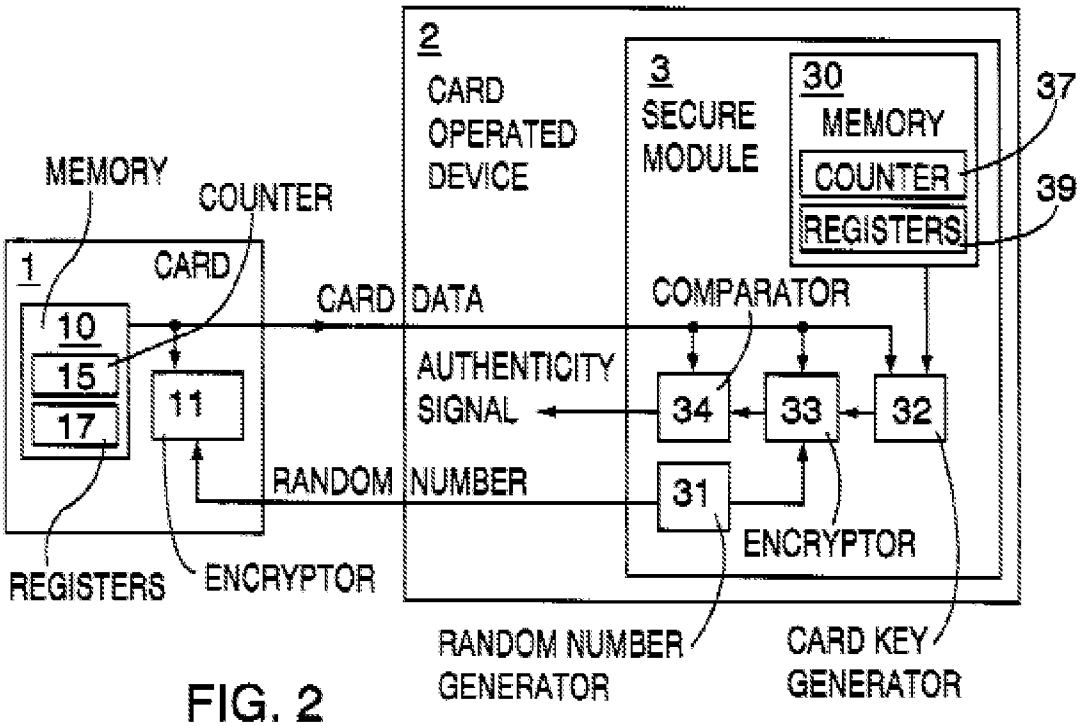

FIG. 2

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention Albertshofer to include the feature of Van De Pavert would have yielded predictable results. Further, applying the encryption system with sensors to Albertshofer would have been recognized by those of ordinary skill in the art as resulting in an improved system that would to provide enhanced security (Van De Pavert; col. 4, lines 37- 44).

As per claim 2, Albertshofer discloses a communications system for transmitting the calculated charge to a central server via a wireless transmission channel (col. 1, lines 40-48).

As per claim 13, Albertshofer discloses the system of claim 1, wherein the sensor measures a speed of the apparatus (col. 1, lines 55-61).

As per claim 14, Albertshofer discloses wherein the sensor collects data from a GPS system (col. 6, line 66-co1.7, line 2).

As per claim 36, Albertshofer discloses wherein the charge is a rental cost (col. 6, lines 23-280

2. Claims 3-5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albertshofer (US Patent Number 6,230,081), in view of Van De Pavert (Patent Number 5,914,471), still in further view of Ando et al. (Patent Number 5,955,970).

As per claims 3-5, Albertshofer does not disclose a security system claim 2, comprising a tamper resistant encasement that encases at least one component of the local data processing system; wherein the encased component comprises the processor; and wherein the encased component comprises the sensor.

However, Ando et al. disclose that ***the on-board device must include a security system for protecting monetary data stored therein and ensuring legitimate communication with the stationary device*** (col. 1, lines 26-30). Ando et al. further disclose that *the illegitimate opening of the on-line device can be detected by sensing the removal of crews fastening a circuit board to a case of the on-board* device.

(col. 2, lines 7-9) The Examiner interprets this to mean a tamper resistant encasement). Ando et al. still further disclose that *the switch is connected to a processor of the on-board device to detect the removal of the screws* (col. 2, lines 11-13). Ando et al. further discloses that *Detectors 5 and 7 detect a vehicle and set a timing of communication between the on-board device and the stationary device. Gate entrance detector 9 and gate exit detector 10 set a timing of opening and closing the gate* (col. 3, lines 30-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Albertshofer to include the security system feature of Van De Pavert and Ando et al. in order to protect the monetary data stored therein the sensor (Ando et al.; col. 1, lines 26-30).

As per claim 15, Albertshofer does not disclose that the sensor measures weight placed on the remote apparatus, however the Examiner takes Official Notice that it is old and well known that condition responsive indicating systems/sensors are sensitive to touch or weight placed on remote apparatuses, i.e. vehicles. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Albertshofer to include the sensor which measures weight in order to avoid intrusion.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albertshofer (US Patent Number 6,230,081), in view of Van De Pavert (US Patent

Number 5,914,471), still in further view of Ando et al. (Patent Number 5,955,970), still in further view of Force et al. (US Patent Number 5,533,123), still in further view of Schwenck et al. (US PG Pub. 2003/0009683).

As per claim 6, Albertshofer does not disclose that that the tamper resistant encasement comprises an epoxy having a signature embedded therein.

However, Force et al. disclose that various encryption schemes have been proposed, such as where a user creates and authenticates a secure digital signature, which is very difficult to forge and thus equally difficult to repudiate (col. 4, lines 16-19). Force et al. does not explicitly teach that the encasement comprises and epoxy.

However, Schwenck et al. disclose the glass sheets 30 and 32 are in this example about [fraction (3/1000)] of an inch thick and face the polymer matrix body 16, with the glass and polymer matrix in intimate face to face contact. The body 16 is made of a black epoxy polymer material 34 such as may be commonly used in the electronics industry as an adhesive for electronic components. The matrix material 34 of the body 16 carries a chemical marker or signature: a substance present, often added specifically, to aid recognition of the matrix material in tests (¶[0056]).

Schwenck et al. further disclose the PCI card 10 of FIGS. 1 and 3 may be as previously described with a glass sheet as its outer surface, or it may be as shown in dotted outline in FIG. 3 and may have an outer shell or layer 38 of encapsulant matrix material, such as epoxy resin matrix, probably with a chemical signature marker(s) (¶[0064])

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Albertshofer to include the feature of Schwenck et al. in order to provide the user the advantage of using an encasement of epoxy which is a more durable, inexpensive, and tougher encasement.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albertshofer (US Patent Number 6,230,081), in view of Van De Pavert (Patent Number 5,914,471), still in further view of Davis et al. (Patent Number 5,844,986).

As per claim 9, Albertshofer does not disclose that the processor comprises a cryptographic coprocessor.

However, Davis et al. disclose that a *cryptographic coprocessor containing the BIOS memory device performs authentication and validation on the BIOS upgrade based on a public/private key protocol wherein the authentication is performed by verifying the digital signature embedded in the BIOS upgrade* (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature of Davis et al. in order to prevent an attacker from trying to corrupt the BIOS contents (col. 2, lines 1-7).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albertshofer (US Patent Number 6,230,081), in view of Van De Pavert (Patent Number 5,914,471), still in further view of Dar et al. (US PG Pub. 2001/0039509).

As per claim 10, Albertshofer does not disclose the system of claim 1, wherein the charge comprises an insurance cost.

However, Dar et al. disclose the *data processor includes a vehicle insurance billing data processor* (¶ [0025]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Albertshofer to include the Dar et al. on order to provide a variety of uses for the data.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albertshofer (US Patent Number 6,230,081), in view of Van De Pavert (Patent Number 5,914,471), still in further view of Ehrman et al. (US PG Pub. 2001/0037298).

As per claim 11, Albertshofer does not disclose that the charges comprise a rental cost.

However, Ehrman et al. disclose that in some instances *the results are entered into a hand held computerized recordation device for entry into the agency computer database for calculation of the final rental charge (either while the lessee waits or as a supplement to the original charge on the initially tendered credit card).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature of Erhman et al. in order to effect payments for vehicle-related services including vehicle rentals (Erhman et al.;¶ [0002]).

7. Claims 16, 21 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dar et al. (US PG Pub. 2001/00395090), in view of Van De Pavert.

As per claims 16 and 23, Dar et al. disclose a system for managing usage information collected on a remote apparatus, comprising:

a central server for receiving information from the remote apparatus, and processing the information to obtain a usage payment (¶ [0039]);

a local data processing system installed on the remote apparatus (¶ [0038]), having:

a monitoring system for gathering usage data from the remote apparatus (¶ [0125]) { without requiring any intervention by the driver, a parking communicator 104, receiving a location input from GPS receiver 102, transmits a message in a wireless manner to a central unit 106, which in turn provides data used for effecting payment for parking};

a processor for managing the usage data (¶ [0039]) {at least one data processor which provides a billing data output in respect of a vehicle-related service} a communications system for communicating information from the processor to the central server (¶ [0038],[0125]).

Dar et al. does not disclose a security system which includes an encryption system.

However, Ando et al. disclose that the *on-board device must include a security system for protecting monetary data stored therein and ensuring legitimate*

communication with the stationary device (col. 1, lines 26-30). Ando et al. further disclose that *the illegitimate opening of the on-line device can be detected by sensing the removal of crews fastening a circuit board to a case of the on-board device* (col. 2, lines 7-9). Ando et al. further *disclose that the switch is connected to a processor of the on-board device to detect the removal of the screws* (col. 2, lines 11-13). Ando et al. still further disclose that *Detectors 5 and 7 detect a vehicle and set a timing of communication between the on-board device and the stationary device. Gate entrance detector 9 and gate exit detector 10 set a timing of opening and closing the gate* (col. 3, lines 30-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to. modify the invention of Dar et al. to include the security system feature of Ando et al. in order to protect the monetary data stored therein the sensor (Ando et al.; col. 1, lines 26-30).

As per claims 21 and 24, Dar et al. disclose the system of claim 20, wherein the usage payment comprises an insurance payment (¶ [0025]) {the data processor includes a vehicle insurance billing data processor}.

8. Claims 17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dar et al. (US PG Pub. 2001/0039509), in view of Van De Pavert, in further view of Ando et al. (Patent Number 5,955,970).

As per claims 17 and 19-20, Dar et al. does not disclose a security system comprising a tamper resistant encasement that encases at least one component of the

local data processing system. Dar et al. does not further disclose that the security system comprises an encryption system for encrypting usage data transmitted between the sensor and the processor.

However, Ando et al. disclose that the on-board device must include a security system for protecting monetary data stored therein and ensuring legitimate communication with the stationary device (col. 1, lines 26-30). Ando et al. further disclose that the illegitimate opening of the on-line device can be detected by sensing the removal of crews fastening a circuit board to a case of the on-board device (col. 2, lines 7-9). Ando et al. still further disclose that the switch is connected to a processor of the on- board device to detect the removal of the screws (col. 2, lines 11-13). Ando et al. still further disclose that Detectors 5 and 7 detect a vehicle and set a timing of Communication between the on-board device and the stationary device. Gate entrance detector 9 and gate exit detector 10 set a timing of opening and closing the gate (col. 3, lines 30-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the security system feature of Ando et al. in order to protect the monetary data stored therein the sensor (Ando et al.; col. 1, lines 26-30).

9. Claim 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dar et al. (US PG Pub. 2001/0039509), in view of Van De Pavert, in further view of Ando et al. (Patent Number 5,955,970), still in further view of Ehrman et al. (US PG Pub. 2001/0037298).

As per claim 22, Dar et al. disclose that there is also a vehicle-related fee payment system including at least one data processor which provides a billing data output in respect of a vehicle-related use fee which is dependent on the time during which the vehicle is being operated (¶ [0068]).

Dar et al. does not disclose that the charges comprise a rental cost.

However, Ehrman et al. disclose that in some instances the results are entered into a hand held computerized recordation device for entry into the agency computer database for calculation of the final rental charge (either while the lessee waits or as a supplement to the original charge on the initially tendered credit card).

Therefore. it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the feature of Erhman et al. in order to effect payments for vehicle-related services including vehicle rentals (¶ [0002]).

As per claim 25, Dar et al. does not disclose that the usage payment comprises a rental fee.

However, Erhman et al. disclose that the customer enters a selected vehicle, punches in the prompted rental (e.g., rental duration, fuel option, insurance coverage option, return option, etc.) and identification information and, when instructed, swipes a credit Card through the reader to activate the system, with transmission of all the information to the central billing and maintenance data base which transmits details to

the checkout gate, where a rental agreement is printed out, when the vehicle arrives at the gate (¶ [0031]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Dar et al. to include the payment feature of Erhman et al. in order to include in-vehicle check out and payment device operatively linkable to the transmitting sensor of the vehicle (Erhman, abstract).

11. Claims 34-35 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albertshofer (US Patent Number 6,230,081), in view of Van De Pavert, in further view of Dar et al. (US PG Pub. 2001/0039509), still in further view of Shimizu et al. (US PG Pub. 2002/0111822).

As per claims 34-35, Albertshofer does not expressly disclose obtaining an electric payment based on the charge; and wherein the charge is an insurance cost.

However, Dar et al. disclose that the data processor includes a Vehicle insurance billing data processor cost (¶ [0012],[0025],[0045]). Dar et al. does not expressly disclose obtaining an electric payment.

However, Shimizu et al. disclose that and IC card might be used to subtract the beneficiary fee or add the provider compensation shown in FIG. 60 through FIG. 65; and if employed to subtract beneficiary fees, it would function in the same way as a prepaid card and to add provider compensation, it would be used like a debit card (¶ [0283]). Shimizu et al. further disclose that if memory medium 5720 could also be used for general purchases (i.e., to pay for other transactions), its utility would be enhanced.

If the memory medium does not have the capability of being used to pay for general purchases, it should still be able to be credited or debited in an ATM machine by accessing the information mediator's account and adding or subtracting the amount recorded on the card (¶ [0283]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Albertshofer to include the feature of Van De Pavert, Dar et al. and Shimizu et al. in order to provide the convenience of credit card payments.

As per claims 37-38, Albertshofer does not expressly disclose the method wherein the usage data is encrypted prior to being communicated to the processor; Albertshofer does not further disclose wherein the charge is encrypted prior to being communicated to the server.

However, Shimizu et al. disclose that identity verification, then, is executed as preprocessing (setup) before data can be exchanged with the mediator. In other words, the mediator issues validation (data) 2701 to the machine or device to which it is connected via a network before the contract is in effect and based on these validation data, it can recognize which machine or device is communicating with it in the future wherein validation data 2701 may consist of a recognition code, a string in machine code used to recognize a machine or device, or they may be a cryptographic key or some other encrypted code (¶ [0207]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Albertshofer, to include the features of Van De Pavert, Dar et al. and Shimizu et al. in order to provide a more secure transfer of information.

Examiner's Note

Examiner cited particular pages, columns, paragraphs and/or line numbers in the references as applied to the claims above the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FREDA A. NELSON whose telephone number is (571) 272-7076. The examiner can normally be reached on Monday and Wednesday-Friday, 8:30 AM -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/F. A. N./
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